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Docket No.: 064965-0047

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Shashank MERCHANT, et al.

Application No.: 09/316,072

Patent No.: 6,904,043 B1

Filed: May 21, 1999

Issued: June 7, 2005

: Customer Number: 20277

: Confirmation Number: 7329

: Group Art Unit: 2667

: Examiner: W.A. Luther

Certificate

JUN 24 2005

of Correction

For: APPARATUS AND METHOD FOR STORING AND PROCESSING HEADER
INFORMATION IN A NETWORK SWITCH

REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 CFR 1.322

Mail Stop Box 4 / Certificate of Correction
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reviewing the above-identified patent, a printing error was discovered therein requiring correction in order to conform the Official Record in the application.

The error noted is set forth on the attached copy of form PTO-1050 Rev. 2-93 in the manner required by the Commissioner's Notice.

Specifically, in the claims, column 21, line 26, please change the phrase "cach of the plurality" to -- each of the plurality --. The correct version of the phrase can be found in Applicants' Amendment of December 31, 2002. A copy of the relevant pages of the Amendment are attached for your information and convenience.

JUN 27 2005

09/316,072

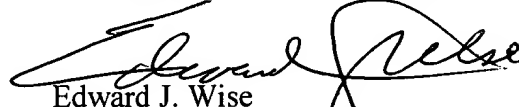
Patent No. 6,904,043

The change requested herein occurred as a result of printing the Letters Patent and the Certificate should be issued without expense under Rule 322 of the Rules of Practice. Accordingly, Applicants request issuance of the Certificate of Correction.

Please charge any shortage in fees due in connection with the filing of this paper to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



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Date: June 20, 2005

**Please recognize our Customer No. 20277
as our correspondence address.**

WDC99 1098256-1.064965.0047

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,904,043 B1

DATED : June 07, 2005

INVENTOR(S) : Shashank MERCHANT, et al.

It is certified that error appears in the above-identified patent and that said Letter Patent is hereby corrected as shown below:

IN THE CLAIMS:

Column 21, line 26, change "cach of the plurality" to -- each of the plurality --.



Applicant: Shashank MERCHANT et al. Docket No. 64965-047

Title/Mark: APPARATUS AND METHOD FOR STORING AND PROCESSING
HEADER INFORMATION IN A NETWORK SWITCH Serial/Reg./Patent No. 09/316,072

Date Sent: December 31, 2002 ☒ Hand Carried ☐ Fax ☐ Electronic ☐ Cert of Mailing ☐ Express Mail No.

☒ Transmittal Letter

☐ New Patent App ☐ Utility ☐ Design ☐ Cont. ☐ CIP ☐ Div. ☐ PCT ☐ CPA ☐ RCE ☐ Prov

☐ Other: _____

_____ pages of Specification
_____ pages of Claims
_____ pages of Abstract
_____ pages of Formal/Informal Drawings

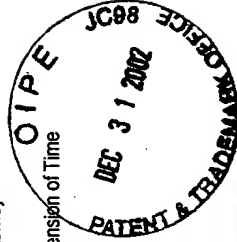
☐ Information Disclosure Statement
Form PTO 1449
_____ copies of cited references

☐ Preliminary Amendment
☐ Response to Missing Parts Notice
☐ Certified Copy of Priority Doc
☐ Claim for Convention Priority
☐ Verified Statement of Small Entity Status
☐ Transmittal of Issue Fee: Form PTO 85b
☐ Maintenance Fee for _____ years after grant
☐ Notice of Appeal ☐ Appeal Brief
☐ Recordation of _____ Patent _____ Trademark

☒ Response/Amendment to Office Action of October 1, 2002 ☐ Assignments/Security Agreements/
Petition to Commissioner for _____

☐ Other _____

☐ Continued Use Affidavit/Declaration (Section 8 & 15)
☐ Notice of Opposition/Answer to _____
☐ Ex Parte Appeal
☐ Petition for Cancellation/Answer To _____
☐ Renewal of Reg. No.
☐ Combined Declaration/Power of Attorney
☐ Letter of Protest
☐ Request for _____-day/month Extension of Time
☐ Request for Non-Publication



Check for \$	<input checked="" type="checkbox"/> Charge Deposit Acct. 500417 \$	0	Atty Init.	WLS	Trkr. #	5623	Secy. or PL Init.	EJ Brown
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CMS Descrip: _____

THE PATENT AND TRADEMARK OFFICE DATE STAMPED HEREON IS ACKNOWLEDGEMENT THAT THE ITEMS, CHECKED ABOVE, WERE RECEIVED BY THE PTO ON THE DATE STAMPED.

Docket No.: 64965-047

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Shashank MERCHANT, et al.

Serial No.: 09/316,072

Group Art Unit: 2664

Filed: May 21, 1999

Examiner: W.A. Luther

For: APPARATUS AND METHOD FOR STORING AND PROCESSING HEADER INFORMATION IN A NETWORK SWITCH

THE COMMISSIONER FOR PATENTS AND TRADEMARKS
Washington, DC 20231

Dear Sir:

Transmitted herewith is an Amendment in the above identified application.

☒
☐
☐

No additional fee is required.

Applicant is entitled to small entity status under 37 CFR 1.27

Also attached:

The fee has been calculated as shown below:

	NO. OF CLAIMS	HIGHEST PREVIOUSLY PAID FOR	EXTRA CLAIMS	RATE	FEE
Total Claims	13	17	0	\$18.00 =	\$0.00
Independent Claims	3	3	0	\$84.00 =	\$0.00
Multiple claims newly presented					\$0.00
Fee for extension of time					\$0.00
Total of Above Calculations					\$0.00

☐ Please charge my Deposit Account No. 500417 in the amount of \$0.00. An additional copy of this transmittal sheet is submitted herewith.

☒ The Commissioner is hereby authorized to charge payment of any fees associated with this communication or credit any overpayment, to Deposit Account No. 500417, including any filing fees under 37 CFR 1.16 for presentation of extra claims and any patent application processing fees under 37 CFR 1.17.

Respectfully submitted,

COPY

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Date: December 31, 2002



Work sheet

Docket No.: 64965-047

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Shashank MERCHANT, et al.

Serial No.: 09/316,072

Group Art Unit: 2664

Filed: May 21, 1999

Examiner: W.A. Luther

For: APPARATUS AND METHOD FOR STORING AND PROCESSING HEADER
INFORMATION IN A NETWORK SWITCH

AMENDMENT

Commissioner for Patents
Washington, DC 20231

Sir:

The following remarks and amendments are being submitted in response to the
non-Final Office Action dated October 1, 2002

IN THE CLAIMS:

Please amend claims 1, 3, 8, 11, 14 and 16 as indicated below. Please cancel
claims 2, 9, 10 and 15 without prejudice or disclaimer of their subject matter.

1. (Amended) A multiport switch configured for controlling communication
of data frames between stations, comprising:

a plurality of receive devices corresponding to ports on the multiport switch, each
of the receive devices configured to receive data frames and transmit the data frames on
an internal bus to an external memory interface;

V

a plurality of queues corresponding to ports on the multiport switch, the plurality of queues formed on a memory device that includes a write port and a read port to enable data to be written to and read from the memory device simultaneously, wherein each of the plurality of queues is configured to store frame header information received via the write port;

a scheduler configured to allocate time slots to the plurality of queues; [and]

a decision making engine configured to receive the frame header information in successive time slots via the read port and to generate data forwarding information; and

a read controller configured to transfer frame header information from the plurality of queues to the decision making engine via the read port,

wherein the scheduler is configured to allocate the time slots based on a predetermined priority and the read controller is configured to transmit frame header information to the decision making engine during the allocated time slots.

2. (Cancelled)

3. (Amended) The multiport switch of claim [2] 1, wherein the read controller is configured to transmit a request signal to the scheduler, the request signal indicating that a first queue has stored frame header information.

8. (Amended) In a multiport switch that controls communication of data frames between stations and includes a plurality of queues corresponding to ports on the multiport switch, a method of processing data frames, comprising:

receiving data frames at a plurality of receive devices;

transmitting the data frames to an external memory interface;

writing frame header information from the data frames to a plurality of queues corresponding to the plurality of receive devices, wherein the plurality of queues are formed on a memory device that includes a write port and a read port;

allocating time slots to the plurality of queueing devices;

transmitting the frame header information from the queues, via the read port and in successive time slots, to an internal decision making engine; [and]

generating data forwarding information;

allocating time slots based on a predetermined priority;

transmitting frame header information during the allocated time slots; and.

transmitting a request signal to a scheduler, the request signal indicating that a first queue has stored frame header information.

9. (Cancelled)

10. (Cancelled)

11. The method of claim [10] 8, comprising:

assigning at least one time slot in a scheduling cycle to each of the plurality of queues; and

allocating the time slot assigned to a first queue when the request signal has been received.

10 13. (Amended) The method of claim [9] 8, wherein the frame header information comprises virtual local area network (VLAN) information.

14. (Amended) A multiport switch configured for controlling communication of data frames between stations, comprising:

a plurality of receive devices corresponding to ports on the multiport switch, each of the receive devices configured to receive data frames and transmit the data frames on an internal bus to an external memory interface;

11 a plurality of queues corresponding to ports on the multiport switch, the plurality of queues formed on a memory device that includes a write port and a read port, wherein each of the plurality of queues is assigned at least one time slot in a scheduling cycle and is configured to store frame header information via the write port;

a scheduler configured to allocate time slots to the plurality of queues based on data traffic at the corresponding receive ports; [and]

a decision making engine configured to receive the frame header information in successive time slots via the read port and to generate data forwarding information; and

a memory controller configured to transfer frame header information from the plurality of queues to the decision making engine via the read port,

wherein the scheduler is configured to allocate the time slots based on a predetermined priority and the read controller is configured to transmit frame header information to the decision making engine during the allocated time slots.

15. (Cancelled)

16. (Amended) The multiport switch of claim [15] 14, wherein:
the memory controller is configured to transmit a request signal to the scheduler,
the request signal indicating that a first queue has stored frame header information,
the scheduler is configured to allocate a time slot assigned to the first queue when
the request signal has been received, and
the memory controller is configured to transmit the frame header information
from the first queue to the decision making engine during the allocated time slot.

REMARKS

Claims 1-17 are active and pending in the present application. Claims 1, 5-9, 13-14 and 17 stand rejected under 35 USC 103 as unpatentable over Murthy et al. (US 5,515,376). Claims 2-4, 10-12, 15 and 16 are indicated having allowable subject matter but are objected to for depending from a rejected base claim.

In response, Applicants have amended claim 1 to include the limitations from claim 2 which was indicated as having allowable subject matter. Claim 2 has, therefore been cancelled, and claim 3 amended to depend from claim 1.

Applicants have amended claim 8 to include the limitations from claims 9 and 10 which were indicated as having allowable subject matter. Accordingly claims 9 and 10 have been cancelled and claim 11 revised to depend from claim 8.

Applicants have amended claim 14 to incorporate the limitations from claim 15 which was indicated as having allowable subject matter. As a result, claim 15 has been cancelled and claim 16 revised to depend from claim 14.

Applicants urge that all independent claims have been amended to incorporate limitations that the Examiner has indicated as allowable subject matter. Accordingly, reconsideration and withdrawal of the rejection under 35 USC 103 of claims 1, 8 and 14 are respectfully requested. As each dependent claim incorporates all the limitations from the independent claims from which they depend, Applicants also request reconsideration and withdrawal of the rejections under 35 USC 103 of dependent claims 5, 6, 7, 13 and 17.

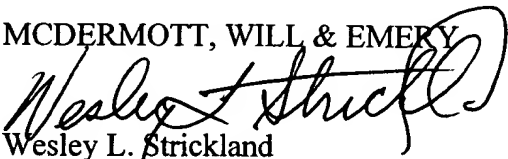
SUMMARY

In view of the above remarks and amendments, Applicants believe that claims 1, 3-8, 11-14, 16 and 17 are in condition for allowance and passage of this case to issue is respectfully requested.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT, WILL & EMERY


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Date: December 31, 2002